

Lebanese Industrial Research Achievements (LIRA)

LIRA's mission is

"Building effective cooperation between industry, academia, and research centers to address the research and development needs of the Lebanese industry, empower the industrial sector with innovations leading to the promotion of competitiveness and productivity, and achieving a transition from a welfare economy to a knowledge-based economy"

Since its inception, the LIRA program has managed to provide researchers in universities and vocational schools career opportunities that suit their capabilities and potential. Furthermore, the program has brought about a great achievement for the national industrial sector by increasing its competitiveness, creating higher added value products, developing production lines, and by introducing locally-made low cost high-tech production equipment.

That's how it all began:

The cooperation in 1997 amongst the Association of Lebanese Industrialists, the National Council for Scientific Research, a handful of universities in Lebanon, and with the support of Friedrich Ebert Stiftung, a German-based public institute foundation, resulted in the initiation of an annual forum: the Conference of Industrial Research & Development, and The Exhibition of Industrial Research Achievements.

This event brings together academic and industrial expertise. It provides an important opportunity for industry, academia and research centers, both public and private, to meet and exchange their research findings.

The first Conference and Exhibition in 1997 showcased applied research output that had been accomplished in a collaborative effort between industry, academia and vocational schools. Furthermore, the exhibited projects and products were subjected to rigorous scientific evaluation, whereby excellence in applied research was rewarded.

Another successful performance followed in 1998 where top projects were rewarded by cash prizes. Consequently, more universities joined the forum with the Ministry of Industry and ESCWA joining the program's founding partners. A consensus was reached among all concerned parties to further develop this forum into what has become a national innovation program. The acronym LIRA (Lebanese Industrial Research Achievements) was coined and a management team headed by a General Coordinator was appointed to implement the objectives of the LIRA program.

This encouraged technological innovation for the purpose of upgrading production processes (*refer to the website www.liraprogram.com*), creating jobs compatible with the ambitions and capabilities of our graduates, and "incubating" new ideas (many of which were directly sponsored by industrialists) that may be turned into start-up businesses.

Since then, LIRA's annual Conference & Exhibition has contributed to the creation of new production lines in several factories (*refer to the website*) and even to the launch of new technical firms as well as to improved university engineering and science course offerings.

These encouraging results of the past years increased, on one hand, the confidence amongst Lebanese industrialists in the potential of the young local graduates in the fields of Engineering and Science, and on the other, the confidence amongst the young generation in the local industry. Industrialists have become aware of the importance of enhancing the capabilities of research labs in universities. Along the same lines, engineering schools became equally aware of industrial requirements and began revising their curricula for the aim of attaining more industry-oriented

research. Together, this new paradigm has been the driving force behind creating a general atmosphere of synergy and cooperation between industry and academia on the national level.

At present, the LIRA program represents the collaboration between the founding members as well as several leading Lebanese companies such as INDEVCO Group, Saccal Holding, GEMAYEL FRERES SAL (Sakr Holding until 2008 and LIBANCELL until 2002) with these companies taking on sponsoring and financial responsibilities. LIRA is working to attract more local and international sponsors to further support and develop LIRA's **objectives** which are to:

1. Encourage university-industry cooperation towards building a knowledge-based economy
2. Match university activities/research with industry needs/problems (towards increasing productivity)
3. Seek industrial sponsorship for proposed university projects (encouraging researchers)
4. Offer a national platform for potential new products and services (supporting university-based research labs)
5. Help engineering and science students in developing their research and projects output into industrial-quality prototypes at minimum cost (reducing brain drain)
6. Provide industrial training, especially on new technologies and mould manufacturing, to fresh graduates and engineers (creating job opportunities)

The **instruments** to help achieve the above are:

- An annual Conference and Exhibition for Research Achievements (LIRA Forum)
- Regular contact with industrialists and universities/vocational schools to help match research with industrial needs through the LIRA Office in the Ministry of Industry
- Undertaking or participating in activities implemented to promote university-industry coordination
- A LIRA-managed TECHNOPOLE to promote industrial training and develop engineering research and projects output into industrial prototypes
- Establishing and supporting vocational training centers in the Mechatronics field
- Coordinating and cooperating with other Arab and International organizations that share similar objectives

According to available statistics, 70% of the LIRA's university-industry joint projects are put into production at the present, hoping that one day a statistical network would be available for the program, so that real growth rates and job vacancies thus created could be measured.

In conclusion, and through years of hard work, the LIRA program has never stopped expanding and developing on its way towards perfection...

Remarkable Joint Industry- Academia Projects

UPGRADES ON EXISTING PRODUCTION LINES (*refer to the website*)

NEW PRODUCTION LINES (*refer to the website*).